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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                                | CONFIRMATION NO.                          |
|---|-------------|----------------------|--|---|
| 10/720,725  | 03/18/2004  | Pei-Chung Wang       | GP-302676  | 2760                                      |
| <div><div>7590</div><div>01/16/2007</div><div>KATHRYN A MARRA<br/>General Motors Corporation<br/>Legal Staff, Mail Code 482-C23-B21<br/>P.O. Box 300<br/>Detroit, MI 48265-3000</div></div> |             |                      |  |   |
|   |             |                      | <div>EXAMINER</div> <div>BEVERIDGE, RACHEL E</div> |   |
|   |             |                      | <div>ART UNIT</div> <div>1725</div>                | <div>PAPER NUMBER</div>                   |
|   |             |                      | <div>MAIL DATE</div> <div>01/16/2007</div>         | <div>DELIVERY MODE</div> <div>PAPER</div> |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/720,725

Applicant(s)

WANG ET AL.

Examiner

Rachel E. Beveridge

Art Unit

1725

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 18 December 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☒ Newly proposed or amended claim(s) 27-29 would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
see continuation sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

reb  
January 8, 2007

**CONTINUATION OF ITEM 11**

***Response to Arguments***

Applicant's arguments filed December 18, 2006 have been fully considered but they are not persuasive.

Applicant argues that the rejection fails to state what portion of Branch is being modified by the corrugated rings of Morris (page 13). The examiner disagrees and points the applicant to review the rejection made final on October 18, 2006. The examiner stated that Branch lacks disclosure of the flexible tubing comprising a plurality of rings (see page 3 of the final rejection). Furthermore, Branch discloses flexible tubing (44); but simply lacks the plurality of rings as disclosed by Morris with respect to a flexible ring. Obviously, the invention of Branch, and more particularly the flexible tubing (44) of Branch can be modified to incorporate the rings of Morris's flexible tubing as discussed in the examiner's rejection. Moreover, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention including the flexible tubing of Branch to include the corrugated rings of Morris in order to maintain the actuated positioning of the welding torch and tubing by resisting any internal tendency to straighten out (Morris et al., col. 2, lines 15-17).

Applicant also argues that modification of the corrugated rings of Morris with the tubular ring structure and a motion controller of Sakai via removing the corrugated rings of Morris would render Morris inoperative for its intended purpose (page 13). The examiner disagrees that modification of the flexible tubing structure of Morris to include features of the ring structure of Sakai including a motion controller would render Morris

Art Unit: 1725

inoperative. The examiner reminds the applicant that both Morris and Sakai solve the same/similar problems; thus providing sufficient suggestion to combine the two references. More particularly, Morris maintains actuated positioning of the welding torch and tubing by resisting any internal tendency to straighten out (hence, maintaining a bent position that is enabled by the flexible tubing). Sakai, provides a bending device of high operability and productivity for an examining insertion tube. Both Morris and Sakai have flexible articulate tubing in order to reach inaccessible or hard to access areas (see Morris, col. 1, lines 15-20 and see Sakai, col. 1, lines 5-10). Furthermore, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined invention of Branch and Morris to include the motion controller and tubular ring structure of Sakai in order to provide a bending device of high operability and productivity for an examining insertion tube (Sakai, col. 1, lines 57-58).

Applicant then argues that the rejections of claims 7, 15, and 16 do not overcome the deficiencies of the "improper combination of Branch et al., Morris et al. and Sakai" for the same reasons as stated previously (page 14). The examiner disagrees that

Art Unit: 1725

there are any deficiencies in the rejection of claims 1, 2, 4-6, 11-14, and 23-26 over Branch, Morris, and Sakai as stated in the responses above.

Applicant stated that claim 1 does not include the stated limitations for indicating allowable subject matter on page 11 of the final office action (page 12). The examiner apologizes for any confusion the applicant may have had when reviewing the examiner's reasons for indicating allowable subject matter. The examiner was trying to indicate that in addition to all of the features of claim 1, the method further including positioning and flexible articulate tubular device so as to trace said target weld path is neither taught or suggested either alone or in combination by the prior art of record. Although, based on new claim 29, it appears as though the applicant understood what feature the examiner was indicating as allowable subject matter.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel E. Beveridge whose telephone number is 571-272-5169. The examiner can normally be reached on Monday through Friday, 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

reb  
January 8, 2007

A handwritten signature in black ink, consisting of a large, stylized 'J' followed by a series of loops and a final downward stroke.

**JONATHAN JOHNSON**  
**PRIMARY EXAMINER**